

PATENT  
TS5575  
CML:CML

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

In re application of	)	
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GILBERT R. B. GERMAINE	)	
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	)	
Serial No. 10/519,250	)	Group Art Unit: 1797
	)	
Filed December 22, 2004	)	Examiner: Randy Boyer
	)	
PROCESS TO PREPARE MEDICINAL	)	October 17, 2008
AND TECHNICAL WHITE OILS	)	
	)	

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COMMISSIONER FOR PATENTS  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**APPEAL BRIEF**

Applicants hereby submit this Appeal Brief in order to appeal the final rejection of claims 1-4 in the Office Action mailed March 17, 2008. Please charge any fees necessary in connection with the filing of this brief to Shell Oil Company Deposit Account No. 19-1800.

#### Real Party in Interest

The real party in interest is Shell Oil Company.

#### Related Appeals and Interferences

To the best of the undersigned's knowledge, there are no related appeals or interferences.

#### Status of the Claims

Claims 1-4 were finally rejected in the Office Action mailed March 17, 2008 and are on appeal.

#### Status of Amendments

No amendments to the claims have been filed.

#### Summary of Claimed Subject Matter

The application currently contains one independent claim. The invention as set forth in claim 1 is directed to a process for the preparation of medicinal white oil or a technical white oil from a Fischer-Tropsch derived paraffinic distillate bottom product.

The process comprises contacting a Fischer-Tropsch derived paraffinic distillate bottom product with a heterogeneous adsorbent. See page 2, lines 17-26. Suitable adsorbents are described on page 2, line 27 – page 3, line 2. The process is used to treat the bottom fraction such that it can meet the color requirements of technical and medicinal white oils. See page 2, lines 5-26.

#### Grounds of Rejection to be Reviewed on Appeal

In the final office action, claims 1-4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Benazzi (WO 01/81508 A1) in view of Biscardi (6,579,441).

#### Argument

##### ***Rejection of Claims 1-4 under 35 U.S.C. 103 over Benazzi in view of Biscardi***

Claim 1 claims a process for the preparation of medicinal white oil or a technical white oil from a Fischer-Tropsch derived paraffinic distillate bottom product, comprising contacting the bottom product with a heterogeneous adsorbent.

The Benazzi reference is in French and the discussion below refers to the US equivalent of that patent, U.S. 6,884,339 (hereinafter the '339 patent). The '339 patent describes an

“improved process for the production of very high quality base oils, i.e., that have a high viscosity index (VI), a low content of aromatic compounds, good UV stability and a low pour point, from petroleum fractions that have a boiling point of greater than 340 °C.” Col. 1, lines 4-9. The patent teaches that with “a judicious selection of operating conditions [it is] possible to obtain white medicinal grade oils.” Col. 1, lines 65-67. The process described has six steps: hydrotreatment, hydrocracking, atmospheric distillation of the effluent, catalytic dewaxing, hydrofinishing and a distillation step comprising atmospheric distillation and vacuum distillation. See Col. 2, lines 6-59.

The Biscardi reference (hereinafter the ‘441 patent) describes “a lubricating oil base stock and . . . a sorption process for dehazing a base oil feed to produce the lubricating oil base stock.” Col. 1, lines 18-20. The patent teaches that the “process is useful for treating streams characterized by a wide range of boiling points [including] diesel feed, waxy middle distillate, lube oils, gas oils and vacuum gas oils, white oils and the like.” Col. 5, lines 12-16. The patent also teaches the use of “synthetic oils such as those [made] by Fischer-Tropsch synthesis.” Col. 5, lines 26-27. The “preferred oil supplied as feed to the . . . process is a catalytically dewaxed base oil” having certain cloud and pour points. Col. 6, lines 12-14.

The Examiner alleges that a person having ordinary skill in the art of processes for the preparation of medicinal and/or technical white oils would have been motivated to combine the process of Benazzi with the adsorption treatment process of Biscardi. Additionally, the Examiner alleges that a person of ordinary skill in the art would have had a reasonable expectation of success in combining the process of Benazzi with that of Biscardi. The Applicant submits that the Examiner is incorrect as further explained below.

The ‘339 patent teaches a process for converting a feedstock into a medicinal white oil that comprises six steps. The ‘339 patent teaches that after the catalytic dewaxing step, the effluent is passed through a hydrofinishing step and then separated by distillation to produce the medicinal white oil. As described in the ‘339 patent and in the specification of the current application, a medicinal white oil must meet certain specifications related to color and UV absorbance. If a medicinal white oil is obtained by the process of the ‘339 patent, there would be no reason to add the additional process taught by the ‘441 patent.

The ‘441 patent states that “[i]t will be immediately obvious to the skilled practitioner that the temperature for removing the haze in the present process is much less than the temperatures used in commercial operations for reducing color from oil using a solid sorption process.” Col. 8, lines 56-60. The ‘441 patent is directed to removing haze, and the only

reference to color appears in Example 9 and shows that the Saybolt color required to meet the specification of a medicinal white oil is not met by the process taught in the '441 patent.

It is clear that there are two different problems being addressed by the cited references. The '339 patent is directed to producing high quality lubricating oils, including medicinal white oils. The '441 patent, on the other hand is directed to reducing haze in lubricating oils, and based on the above discussion one of ordinary skill in the art would not have combined the two processes to produce a medicinal white oil. The combination of references does not provide a reasonable expectation of success because the '441 patent teaches away from using the adsorption step for reducing color which is one of the key specifications in producing technical or medicinal white oils. If the product of the '339 patent does not constitute a white oil (i.e., it does not meet the color requirements), there is no motivation or expectation that the process of the '441 patent would solve that problem.

#### Conclusion

Based on the foregoing arguments, Applicant asserts that the claims of the present application would not have been obvious in view of the cited references. It is respectfully requested that this appeal be upheld and that the application be sent back to the Examiner for allowance.

Respectfully submitted,

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## CLAIMS APPENDIX

1. A process for the preparation of medicinal white oil or a technical white oil from a Fischer-Tropsch derived paraffinic distillate bottom product, comprising contacting the bottom product with a heterogeneous adsorbent.
2. The process of claim 1, wherein the adsorbent comprises active carbon.
3. The process of claim 1, wherein a medicinal white oil is obtained having a kinematic viscosity at 100 °C of more than 8.5 cSt, a non-cyclic isoparaffins content of between 80 and 98 wt%, a Saybolt color of greater than +30, Ultra violet adsorption spectra values as measured by ASTM D 2269 of less than 0.70 in the 280-289 nm spectral band, of less than 0.60 in the 290-299 nm spectral band, of less than 0.40 in the 300-329 nm spectral band and of less than 0.09 in the 330-380 nm spectral band as according to FDA 178 3620 ('c).
4. The process of claim 1, wherein said bottom product is obtained by a process comprising:
  - (a) hydrocracking/hydroisomerisating a Fischer-Tropsch derived feed, wherein weight ratio of compounds having at least 60 or more carbon atoms and compounds having at least 30 carbon atoms in the Fischer-Tropsch derived feed is at least 0.2 and wherein at least 30 wt% of compounds in the Fischer-Tropsch derived feed have at least 30 carbon atoms;
  - (b) separating the product of step (a) into one or more distillate fraction(s) of lower boiling fractions and a broad range base oil precursor fraction and a heavy fraction such that the T90 wt% boiling point of the base oil precursor fraction is between 350 and 550 °C;
  - (c) performing a pour point reducing step to the broad range base oil precursor fraction obtained in step (b); and,
  - (d) isolating a heavy bottom distillate fraction by distilling the product of step (c).

## EVIDENCE APPENDIX

None.

## RELATED PROCEEDINGS APPENDIX

None.